

CLAIMS

1. A cover-mounting structure of a plastic container having a cover for closing an opening provided in a plastic container body at least part of which is made of a barrier material,
 - 5 wherein a portion of the plastic container where the opening is provided has a flange portion;
 - the cover-mounting structure of the plastic container comprising:
 - 10 a recess provided annularly along a peripheral edge of the opening at an outside of the plastic container body, with an annular member being embedded integrally in the recess;
 - the cover resting against the flange portion to close the opening;
 - 15 a seal provided between the flange portion and the cover to prevent a leak; and
 - an annular retainer fastened to the annular member while resting against an external surface of the cover.
2. A cover-mounting structure of a plastic container according to claim 1, wherein a plurality of bolts for fastening the retainer are provided protrusively in the annular member.
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3. A cover-mounting structure of a plastic container according to claim 1, wherein a screw hole is provided vertically in the annular member.
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4. A cover-mounting structure of a plastic container according to claim 1, wherein the annular member and the retainer are formed of metal materials.
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5. A cover-mounting structure of a plastic container according to claim 1, wherein a thread is formed on an outer or inner cylindrical surface of the annular member.

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6. A cover-mounting structure of a plastic container according to claim 1, comprising:

an outer rib projecting upwardly from an outer edge of a top surface of the flange portion; and

10 an inner rib projecting downwardly from an undersurface of an outer edge portion of the cover toward the top surface of the flange portion,

wherein the seal is provided in a space defined between the outer rib and the inner rib; and

15 wherein the outer rib comes into contact with the undersurface of the outer edge portion of the cover when the cover is placed over the opening.

7. A cover-mounting structure of a plastic container according to claim 1, comprising:

20 an outer rib projecting upwardly from an outer edge of a top surface of the flange portion; and

a seal guide shaped like a letter L in cross section so as to conform to a shape of a corner at an inner edge of the top surface of the flange portion,

wherein the seal is provided in a space defined between the outer rib and the seal guide.

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8. A cover-mounting structure of a plastic container according to claim 7, wherein the seal guide is of a soft resin having a fuel barrier property against HDPE (high-density polyethylene) with solubility parameter of 11 or greater, or of a soft EVOH (alcohol copolymer).

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9. A cover-mounting structure of a plastic container according to claim 1, comprising a metal ring provided between an area of a top surface of an outer edge portion of the cover under which area the seal is placed and a surface of the retainer which presses the cover,

10 wherein the metal ring has a spring tension acting in such a direction that the portion of the plastic container where the opening is provided is pressed by the cover.

10. A cover-mounting structure of a plastic container according to claim 1, 15 wherein the retainer has a spring tension acting in such a direction that the portion where the opening is provided is pressed by the cover.

11. A cover-mounting structure of a plastic container according to claim 9 or 10, wherein pump fittings are integrally mounted in the cover.

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12. A cover-mounting structure of a plastic container according to claim 4, wherein in the plastic container body immediately after plastic molding, a space to be allowed for thermal contraction of plastic is provided between an outer inside wall of the recess and an outer cylindrical end face of the annular member.

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13. A cover-mounting structure of a plastic container according to claim 12, wherein the annular member is so shaped as to be kept from obstructing the thermal contraction of the plastic container, and includes a plurality of bolts provided protrusively at annularly arranged positions along a peripheral edge of the opening.

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14. A cover-mounting structure of a plastic container according to claim 12 or 13, wherein in the plastic container body thermally contracted after plastic molding, the outer inside wall of the recess and the outer cylindrical end face of at least one of the annular member and the bolts are in contact with each other.

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15. A cover-mounting structure of a plastic container according to claim 12 or 13, wherein in the plastic container body after plastic molding, a bottom surface of the space is in a position lower than bottom surfaces of the annular member and the bolts.

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16. A cover-mounting structure of a plastic container according to claim 12 or 13, wherein in the plastic container body thermally contracted after plastic molding, a drainage passage is provided in an external surface of the plastic container body to drain water that tends to stay in or around interfaces between the recess and the annular member and between the recess and the bolts.

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17. A cover-mounting structure of a plastic container according to claim 12 or 13, wherein the annular member is insert-molded with a plastic material from which the plastic container body is molded to form the plastic container body.

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18. A cover-mounting structure of a plastic container according to claim 1, wherein a through hole is provided to allow a space formed on a side of the retainer facing the plastic container body by fastening the retainer to the annular member to communicate with outside.

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19. A cover-mounting structure of a plastic container according to claim 18, wherein the through hole is provided in the retainer.

20. A cover-mounting structure of a plastic container according to claim 18
10 or 19, wherein the through hole is provided between the annular member and an external wall of the plastic container body to which the annular member is fastened, or between the retainer and the annular member.